

**BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS**

In the Matter of the Joint Application of Evergy)
Kansas Central, Inc. and Evergy Kansas South,) Docket No. 20-EKCE-406-ACA
Inc. for Approval of their Annual Energy Cost)
Correction Adjustment Factor.)

NOTICE OF FILING STAFF'S REPORT AND RECOMMENDATION
REDACTED VERSION

Commission Staff of the State Corporation Commission of the State of Kansas ("Staff" and "Commission" respectively), submits its Notice of Filing Staff's Report and Recommendation ("Report") and states as follows:

Staff's Report recommends the Commission approve Evergy Kansas Central's request approval of an increase of \$10,804,468 for its Annual Correction Adjustment (ACA) filing which results in an ACA factor of \$0.000527 per kWh to be collected from retail customers during the ACA period ending December 31, 2019.

Additionally, Staff performed an evaluation of Evergy Central's self-commitment practices and decisions to self-commit its coal-fired generation during the 2019 year. Staff did not find any imprudence in Evergy Central's management of the self-commitment of its coal fleet.

WHEREFORE, Staff requests the Commission consider its Report and Recommendation, and for any other further relief as the Commission deems just and reasonable.

Respectfully submitted,

s/Cole Bailey
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**REPORT AND RECOMMENDATION
UTILITIES DIVISION**

REDACTED VERSION

**  ** Denotes Confidential Information

TO: Chair Andrew J. French
Commissioner Dwight D. Keen
Commissioner Susan K. Duffy

FROM: Brad Hutton, Auditor
Ian Campbell, Auditor
Katie Figgs, Managing Auditor
Chad Unrein, Senior Managing Auditor/FERC Affairs Specialist
Andria Jackson, Deputy Chief of Revenue Requirements, Cost of Service and Finance
Justin Grady, Chief of Revenue Requirements, Cost of Service and Finance
Jeff McClanahan, Director of Utilities

DATE: June 22, 2021

SUBJECT: Docket No. 20-EKCE-406-ACA: In the Matter of the Joint Application of Evergy Kansas Central, Inc. and Evergy Kansas South, Inc. for Approval of their Annual Energy Costs Correction Adjustment Factor

EXECUTIVE SUMMARY:

On March 19, 2020, Evergy Kansas Central, Inc. and Evergy Kansas South, Inc. f/k/a Westar Energy, Inc. and Kansas Gas and Electric Company (Collectively, referred to as “Evergy Central”) filed a Joint Application (Application) for approval of its respective ACA factors under the Retail Energy Cost Adjustment (RECA) clause. In its Application, Evergy Kansas requested approval of an increase of \$10,804,468 for its Annual Correction Adjustment (ACA) filing, which results in an ACA factor of \$0.000527 per kWh to be collected from Kansas customers. Staff conducted an audit of Evergy Central’s ECA costs including Evergy Central’s SPP IM activity. As part of its audit, Staff included an evaluation of the market performance of Evergy Central’s coal units during their self-committed operation. The confidential findings are detailed in the Analysis Section of this report. Based on Staff’s market performance review, Staff found that Evergy Central’s coal units produced day-ahead energy margins in the vast majority of operating months in which the units were self-committed. When viewed in aggregate, each of Evergy Central’s coal units fully recouped their production costs. Therefore, Staff is not recommending any adjustments to Evergy Central’s ACA Application and recommends approval of the filed Application.

BACKGROUND:

As discussed, Evergy Central filed an Application requesting approval of its ACA factors for its ECA year ending December 31, 2019.¹ Accompanying the Application were the testimonies of Evergy Central's witnesses, Elizabeth Herrington and James Meitner. In her testimony, Ms. Herrington explained the calculations and assumptions underlying the requested ACA factor and presented three Exhibits. Exhibit A attached to the Application summarizes the actual energy costs incurred and all components of the RECA incurred by Evergy Central during the ACA period of January 1, 2019, through December 31, 2019. Exhibit A also shows the over/under-recovery of energy costs and the calculation of the ACA factors for the ACA year ending December 31, 2019. As referenced in Exhibit A, Evergy Central experienced an under-recovery of \$10,804,468 for the 2019 ACA filing, which included an under-recovered balance of \$13,488,027 from January through December of 2019 and an over-recovered balance of \$2,683,559 from the previous year's ACA. Based on the under-recovery, Evergy Central calculated an ACA factor of \$0.000527 per KWh to be collected from Kansas customers, which was reflected in the Evergy Central RECA in the first billing cycle in April 2020. Exhibit B provided a monthly calculation of the over/under-recovered energy cost for each month of the ACA year. Exhibit C contained Evergy Central's forecasted RECA factor for each quarter of 2020.

On March 1, 2014, SPP implemented the Integrated Market (IM).² The IM is a regional day-ahead energy and operating reserve market featuring the following major functions:

- Day-ahead energy and operating reserve markets;
- Day-ahead and intra-day Reliability Unit Commitment processes;
- Real-time balancing market;
- Price-based, co-optimized energy and operating reserve procurement;
- Market-based congestion management processes including Auction Revenue Rights (ARRs) and Transmission Congestion Rights (TCRs);
- Multi-Day Reliability assessment to manage the commitment of long-start resources; and
- Market Monitoring and Mitigation with an internal Market Monitoring Unit.³

With the implementation of the IM, Evergy Central sells energy and operating reserves produced from its company-owned generating resources to SPP in the Day-Ahead (DA) and Real-Time Balancing Market (RTBM) and purchases the energy and operating reserves it needs to serve its native load obligations on a daily basis. Evergy Central's revenues and expenses generated in the SPP IM are recorded to certain FERC accounts and recovered under Evergy Central's ECA tariff. At the launch of the SPP IM in 2014, Staff expanded the scope of the ACA audit to include a review of Evergy Central's participation in the SPP IM. Staff monitors and reviews Evergy Central's monthly market activity and performs a yearly review of Evergy Central's controls, procedures, and performances in the annual ACA audit.

¹ In Docket No. 09-WSEE-925-RTS, the Commission approved a Stipulation and Agreement that resulted in the consolidation of the majority of Evergy Central and Evergy South's rates, including the RECA's and all other riders and surcharges. Thus, the ACA proposed in this Application was calculated on a consolidated basis and will be applied to all customers in Evergy Central's combined service territory.

² See FERC, *Order on Compliance Filing*, January 29, 2014, Docket Nos. ER12-1179 and ER13-1173; http://elibrary.ferc.gov/idmws/file_list.asp?accession_num=20140129-3063.

³ *Southwest Power Pool, Inc.*, 141 FERC ¶ 61,048 (2012) (October 2012 Order).

As part of the 2018 ACA Audit Report, Staff provided the Commission with a study analyzing Evergy Central's self-commitment strategies for its coal units in the SPP IM. Numerous regulatory studies have been conducted on the self-commitment of coal-fired-generating units and their effects on wholesale energy markets. As discussed in Staff's Report, the self-commitment of coal-fired units has the potential to suppress wholesale market prices and can raise the production costs in a regional RTO. Self-committed units circumvent the economic unit commitment process and the "merit-based" dispatch system of generating units. The reordering of merit-based dispatch has the potential to displace lower-cost regional energy producers. Staff's study provided a comprehensive review of the impacts self-commitment can have on energy markets. Additionally, Staff explored the operational and market strategies of Kansas jurisdictional utilities in managing the self-commitment of their coal-fired generation and reviewed the market performance of their coal units across a three-year study period. The purpose of the market performance review was to determine if ratepayers were being negatively impacted by self-commitment practices of regulated utilities.

Based on its review, Staff found that Evergy Central's volume of self-committed energy trended downward across the study period, as Evergy Central increased the market-commitment of its units. This allowed Evergy Central's coal units to cycle more frequently and reduced the unit's operation in uneconomic market hours. Additionally, Staff found that Evergy Central's day-ahead wholesale energy revenue exceeded the short-run marginal production costs of operating the units in the vast majority of operating months. When viewed in aggregate, each of Evergy Central's coal units produced a contribution margin, which contributes to the fixed cost recovery of operating Evergy Central's coal units. In Kansas, the wholesale revenue produced by Evergy Central's generating units offset the fuel, variable production costs, and purchase power expenses incurred to serve its retail load. Based on its investigation, Staff concluded that Kansas ratepayers were not harmed by Evergy Central's market strategies for managing the self-commitment of its coal units. Therefore, Staff did not recommend any disallowances for the uneconomic dispatch of Evergy Central's coal units.

Following up on last year's report, Staff constructed a market performance template to review the self-commitment of Evergy Central's coal units as part of its annual audit of SPP market activity presented in the ACA Report. The self-commitment/market performance review will be considered confidential due to Evergy Central's market data containing information for services rendered in a competitive wholesale energy market. Staff's performance review will include the following market activity for each coal unit.

- DA Operating Margin: calculated as the DA operating revenue generated from the coal unit's sale of energy and operating reserve products less the total production costs of the coal unit in the ACA.
- DA Energy Margin for Self-Committed Coal Units: calculated by multiplying the self-committed energy times the difference in the average market price for energy received during the unit's self-commitment period less the average incremental production costs recoverable under SPP's mitigated offer guidelines.
- Historical analysis of volume of self-committed energy (Megawatt-hours or MWh).
- Historical analysis of number of self-committed operating hours.

ANALYSIS:

Traditional Fuel and Purchased Power Review

Staff solicited from Evergy Central, via formal discovery requests, documentation supporting Evergy Central's Application and Exhibits A, B, and C attached to the Application. Staff performed the majority of its audit in-house using the information gathered through this process. Once the desk audit was complete, Staff met with Evergy Kansas Central at their corporate office in Topeka, Kansas. This meeting allowed Staff to further question Evergy Kansas Central about information provided in response to data requests and to review Evergy Kansas Central's coal and transportation contracts. Staff notes that Evergy Kansas Central's personnel were open and forthcoming when answering Staff's questions and providing requested supporting documentation. Staff audited Evergy Kansas Central's actual fuel costs for the following months: April, May, August, and September of 2019.⁴ For these months, Staff conducted an audit of the Application that consisted of:

- Verifying the accuracy of the monthly settlement computations by ensuring the actual cost adjustment computed by Evergy Kansas Central reflects the actual over/under-recoveries and the actual sales to Kansas jurisdictional customers;
- Ascertaining that the actual fuel, purchased power, and emission costs recovered through the ECA are actual costs supported by vendor invoices and general ledger entries;
- Verifying that sample costs reviewed are just and reasonable; and
- Verifying that the ECA factor used to calculate the customer's bill agrees with the calculation that the company files with the Commission.

For this first portion of Staff's audit, no material irregularities were found in the information provided.

SPP Integrated Marketplace Review

As referenced in the Background Section, Staff's ACA audit includes the review of Evergy Central's participation in the SPP IM during 2019. Staff issued formal discovery requests to document Evergy Central's processes and procedures involving its day-to-day operations within the SPP IM.

Staff's audit of Evergy Central's participation in the SPP IM included the following objectives:

1. Review Evergy Central's process and control procedures to validate the accuracy of SPP invoices and statements.
2. Examine Evergy Central's management of market performance and operational risk within the SPP IM.

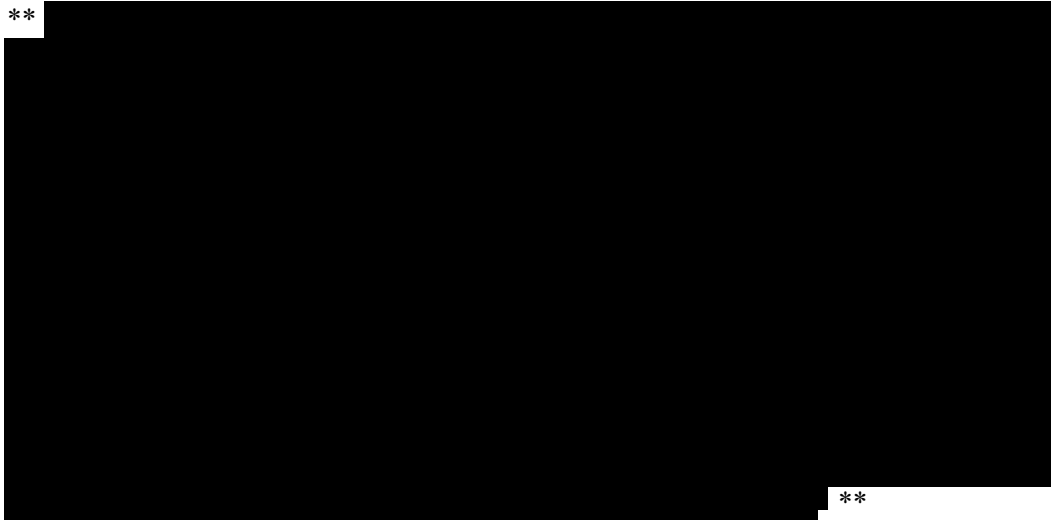
⁴ In accordance with the Commission's Order in Docket No. 19-WSEE-355-TAR, Evergy Central made an adjustment to remove the fuel and variable costs related to its 8% ownership interest in Jeffrey Energy Center that was purchased from Midwest Power Company following the expiration of the Mid-Kansas Electric Cooperative's Purchase Power Agreement. In September of 2019, Evergy Central made an adjustment to remove the fuel and variable costs for the ownership interest that were booked to its ECA from January – September. Following the September adjustment, Staff confirmed that Evergy Central no longer booked these costs directly in the ACA cost calculation.

3. For the months being audited in this year's ACA audit, evaluate whether Evergy Central has accurately accounted for its SPP IM revenue and costs pursuant to the provisions of the current ECA tariff.
4. Examine Evergy Central's all-in ECA cost calculation and determine whether Evergy Central's participation in the SPP IM is providing benefits to Kansas ratepayers.
5. Analyze the market performance of Evergy Central's coal units and review trends in the volume of self-committed MWhs and number of hours Evergy Central's coal units were self-committed in the SPP IM.

Processes & Control Procedures

In examining Every Central's control procedures around the verification of its SPP IM billing statements, Staff issued formal discovery requests based on its SPP audit findings and review of fuel and purchase power expenses in last year's ACA Report.⁵

Through discovery, Staff requested Evergy Central review its software applications for interacting with the SPP IM and discuss the application's functionality. In its confidential response, Evergy Central stated,

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In prior audits, Evergy Central provided Staff with its Power Marketing Flow Charts and Power Accounting Standard and Procedures that documented Evergy Central's processes, procedures, and controls encompassing all SPP IM activities. Staff examined Evergy Central's workflows and control procedures for DA and RTBM activities, verification of meter data, shadow settlement, verification of SPP settlement statements, and recording SPP IM activity to its general ledger. Evergy Central's shadow settlement process uses its own meter data to calculate SPP IM activity independently, which is checked against the daily settlement statements produced by SPP. These statements contain the daily revenues and charges for each operating day by charge type. If the shadow settlement calculation deviates from the SPP invoice, Evergy Central reviews the internal settlement calculation and meter data, and if necessary, files a dispute in the SPP marketplace portal.

⁵ See Staff's Report & Recommendation in Docket No. 19-WSEE-380-ACA.

⁶ See Confidential Response to KCC Data Request No. 57.

In Staff's evaluation, Evergy Central has robust control procedures in place to verify the accuracy of SPP's settlement statements and a defined process for submitting and monitoring billing disputes with SPP. The control procedures and documented workflows ensure that Evergy Central's transactions with the SPP IM are accurately booked to its general ledger.

Market Performance and Operational Risk

In order to evaluate Evergy Central's market performance and operational risks, Staff issued formal discovery requests to Evergy Central requesting information on its generation bidding practices, process for evaluating incremental sales opportunities, its forecasting of day-ahead load, and the management of congestion costs and TCR revenues. Staff's analysis includes a high-level overview of Evergy Central's marketing processes, bidding strategies, forecasting techniques, and calculation methodologies. Evergy Central strategies are complex and highly confidential and can be made available for the Commission's review should the need arise.

As a part of the audit, Staff examined Evergy Central's practices for developing and updating fuel costs and variable operating and maintenance costs associated with developing its resource offers. Evergy Central calculates and tracks the profitability on all units on a daily basis for both DA and RTBM. Evergy Central summarizes market activity in a daily and monthly report containing a profit and loss analysis and revenue deficiencies by unit.

In its confidential response to KCC Data Request No. 62, Evergy Central discusses its market procedures for monitoring and tracking the market performance and provided excel worksheet detailing its performance tracking analysis for its units. In the response, Evergy Central discusses one of its performance metrics:

**
[REDACTED]
**

Evergy Central employs forecasting software for managing its day-ahead generation offers and load for its retail customers, which limits the risk deviations from the DA market activity and actual operating results in real-time. The DA market is financially binding on the market participant, so large deviations in market activity increases the customer exposure to the more volatile RTBM market pricing. In response to discovery, Evergy Central discusses its general strategy for forecasting its day-ahead load and the software solution employed in forecasting,

**
[REDACTED]

⁷ See Confidential Response to KCC Data Request No. 62: DA and RT Performance Tracking.

[REDACTED]

Staff issued several formal discovery requests regarding Evergy Central's hedging strategies and procedures regarding its congestion management processes for products, such as ARR and TCRs, within the SPP IM.⁹ In these responses, Evergy Central discussed its strategy was to self-convert ARR into TCRs based on seasonality, load forecast, and generating path. Evergy Central discussed the basics of its ARR conversion strategy and provided an analysis of its ARR conversions in 2019, stating:

** [REDACTED] **

In its review of congestion costs and TCR revenue, Evergy Central stated that multiple line upgrades contributed to reduced congestion charges in 2019. Transmission lines upgraded around the Wichita area had the most significant impact on the reduction in congestion costs. In its Confidential Response to KCC Data Request No.60, Evergy Central provided a year-over-year analysis of congestion costs and revenues generated by its TCR portfolio,

** [REDACTED]

⁸ See Confidential Response to KCC Data Request No. 65: DA Market Load.

⁹ ARR and TCRs are congestion management products that allow market participants to hedge their exposure to Marginal Congestion Costs in the IM. ARR are allocated to entities with firm transmission rights on the transmission system, for example, a vertically integrated, investor-owned utility that uses its Network Integrated Transmission Service (NITS) to serve its retail load. An ARR entitles the holder to a share of revenues generated in an applicable TCR auction, or the ARR may be converted into a TCR. A TCR allows a holder to be compensated or charged for congestion between two settlement locations in the DA. ARR (indirectly) and TCRs (directly) derive their value based on the difference between the congestion price at the source settlement location less the congestion price at the sink settlement location multiplied by the awarded MW quantity over the specific path.

¹⁰ See Confidential Response to KCC Data Request No. 59: ARR Conversion.

[REDACTED] **

Evergy Central actively manages its TCR Portfolio by pursuing monthly TCR auctions to fill in gaps in congestion cost exposure. Additionally, Evergy Central manages and maintains its Long-term Congestion Rights (LTCR) positions year-to-year. The following confidential analysis discusses the impact of Evergy Central monthly TCR purchases and LTCRs,

** [REDACTED]

[REDACTED] **

For 2019, Evergy Central provides a breakdown of its TCR portfolio and the value of each hedge as follows:

** [REDACTED] **

Finally, Evergy Central discusses its software packages for managing its TCR portfolio throughout 2019 as follows:

** [REDACTED]

¹¹ See Confidential Response to KCC Data Request No. 60: TCR Portfolio.

¹² See *Id.*

¹³ See *Id.*

In Staff's evaluation, Evergy Central has the process and procedures in place to evaluate the performance of its units and actively manages its risks of operating in the SPP IM. The strategies Evergy Central employed in managing its congestion exposure appears to have been successful, as its ARR/TCR portfolio produced revenues of ** [REDACTED] ** or a hedge of ** [REDACTED] ** of its realized day-ahead congestion costs in 2019.¹⁵ In Staff's review of market performance and risk mitigation, Staff finds that Evergy Central has diligently managed the risks and profitability associated with the IM and is taking the steps necessary to be successful in the IM.

Prior to the go-live date of the IM, Staff implemented a monthly review process to monitor the IM activity of the three vertically integrated, investor-owned electric utilities in the State of Kansas. Each utility is required to submit a Monthly Activity Report to the KCC's Utility Division that detail the utilities operations in the SPP IM.¹⁶ The Monthly Activity Report summarizes the utilities' monthly market data by SPP IM charge type, which provides Staff a summary-level view of how each utility is faring in the marketplace. For example, Staff can view the amount of MWhs of day-ahead or real-time asset energy Evergy Central sold into the IM and for what total dollar amount. Likewise, the report summarizes what energy and operating reserve products Evergy Central purchased from the IM for the month, the MWhs associated, and the net dollar impact of those products. Not only do these monthly reports provide Staff the ability to monitor on a monthly basis how Kansas electric utilities are performing in the IM, the reports also serve as a useful audit tool during the ACA audit. These reports provide the foundation for reconciling the monthly IM charges form SPP settlement statements and invoices to the journal entries recorded in the Company's general ledger and ultimately back to the Company's ACA Application to true-up over/under recovery of actual costs.

¹⁴ *See Id.*

¹⁵ *See Id.*

¹⁷ Virtual transaction are DA market instruments that settle financially and have no physical energy backing. These transactions are a proposal by a Market Participant to **buy or sell** energy at a specified price, Settlement Location

Report). These reports are reviewed by Staff to ensure that only virtual transactions with a legitimate hedging basis are recovered from Kansas ratepayers.

As part of Staff's review of Evergy Central's participation in the SPP IM, Evergy Central provided Staff with a reconciliation worksheet that documented and verified its market activity for the audited months. This worksheet reconciles the Monthly Activity Report to the weekly SPP settlement statements and ties the monthly activity to Evergy Central's transactions recorded in its general ledger. Staff tied each settlement invoice to the reconciliation spreadsheet and verified that the net energy sales and load purchases tied to the Monthly Activity Report. In its review of Evergy Central's revenue and costs, Staff determined that the SPP settlement statements and the Monthly Activity Reports were accurately reported on Evergy Central's general ledger. Finally, Staff verified that the data provided tied back to Evergy Central's ACA Application for the sample months audited.

Analysis of All-in Fuel Cost

In each its ACA audits, Staff has presented a Kansas all-in fuel or total ECA cost calculation for Evergy Central. The calculation includes production fuel costs; purchased power expense; emission allowances, less costs to achieve non-requirements and total non-fuel differences, which is then, apportioned by the delivered MWh to Evergy Central's requirements customers. Staff has used the metric as a performance-tracking tool to guide discovery requests and determine underlying trends or cost drivers that impact market performance. Outside factors, such as SPP wholesale energy prices, costs for fuels, and customers' demand for energy, can drive changes in the total ECA costs that are passed on to Evergy Central's ratepayers. For the 2019 ACA year, Evergy Central's ECA eligible costs totaled ** [REDACTED] **, which represented a year-over-year increase of ** [REDACTED] **. ¹⁸ During this period, Evergy Central's total MWh delivered to retail ratepayers decreased by ** [REDACTED] **. ¹⁹ The total Kansas fuel and purchased power per kWh totaled ** [REDACTED] **, which represented a year-over-year increase of ** [REDACTED] **. ²⁰

Through discovery, Staff requested that Evergy Central provide an analysis of the cost drivers for the 2019 ACA. Staff will summarize Evergy Central's confidential response to KCC Data Request No. 74 and incorporate a year-over-year comparison of costs included in Evergy Central's Confidential ACA Application.

** [REDACTED]

and period of time in the DA market and settles at the Settlement Location and period of time at the market price in the RTBM.

¹⁸ Calculated using Evergy Central's Annual RECA Monthly Update, included in Exhibit B of the testimonies of Elizabeth Harrington (20-406 Docket) and Robin Allacher (19-380 Docket).

¹⁹ See *Id.*

²⁰ See *Id.*

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Benefit of the SPP IM to Kansas Ratepayers

In order to evaluate whether Evergy Central's participation in the IM provided benefits to its Kansas customers in 2019, Staff relied on SPP's calculation of the regional marketplace benefit, and Evergy Central's modeled analysis of the IM market benefits produced from the consolidation of SPP into a single balancing authority. Staff issued a request to SPP to provide an updated calculation of the regional marketplace benefits produced during 2019 and since the inception of the SPP IM. Based on SPP's analysis, the IM provided a net regional benefit of \$776 million from its Energy and Regulation markets in 2019, and roughly \$3.48 billion in regional benefits from its inception in 2014. This information suggests Evergy Central's participation in the SPP IM has produced some benefits to Kansas ratepayers in 2019.

In addition to the analysis prepared by SPP, Staff issued discovery requesting Evergy Central provide its own analysis that examines the estimated benefit produced by the SPP IM Consolidated Balancing Authority versus the costs to serve retail customers with Evergy Central's generating units. In response, Evergy Central provided a modeled cost simulation, which estimates the actual fuel and purchased power to supply native load using Evergy Central-owned generation. Staff would note that Evergy Central's model does not consider access to wholesale energy markets in the calculation of estimated savings. Inputs to the model include actual fuel prices, renewables output, and actual load. ARR and TCR revenue are then added to the results of the model. The results showed that Evergy Central's participation in the SPP IM reduced costs by an estimated **
** in 2019.²²

Staff has not performed a comprehensive review of the benefits and costs derived from Evergy Central's participation in the various components of the SPP IM. Staff's analysis focused on short-run marginal costs of generating and transmitting power to serve Evergy Central's load. From the year 2018 to 2019, Evergy Central experienced an increase in the total all-in fuel cost per kWh **
**, which was primarily driven by the loss of the MKEC lease of JEC. While Evergy Central experienced an increases in costs to serve retail load in 2019, Staff has observed a decline

²¹ See Confidential Response to KCC Data Request No. 68, Attachment_Q68_CONF_2019 Monthly Summary SPP vs. No SPP.xlsx.

²² Evergy Central's estimation of cost savings from the SPP IM was modeled using an energy marketing modeling software. Evergy Central's analysis included the benefits resulting from the consolidation of SPP into one balancing authority, which is only a small part of the SPP IM. The estimated benefit is not meant to be comprehensive of all SPP IM activity.

in Evergy Central's cost per KWh of roughly ** [REDACTED] ** to serve its retail load since the implementation of the SPP IM in 2014.

Based on the available data from SPP, the modeled results performed by Evergy Central, and the decline in the overall cost to serve Evergy Central's load since 2014, Staff's analysis suggests that the SPP IM is benefitting Evergy Central's ratepayers.

Performance Review of Evergy Central's Coal Units

In the 19-380 Docket, Staff performed a comprehensive review of Evergy Central's operational strategies for managing the self-commitment of its coal units and evaluated the market performance of the units. Staff plans to incorporate a performance review of Evergy Central's coal units in its yearly audit of SPP market activity. As part of the discovery process, Staff issued a performance template requesting monthly market data for Evergy Central's coal units in 2019. In the ACA Report, Staff evaluates the market performance of Evergy Central's unit by analyzing the total production margins or revenue generated by Evergy Central DA energy and operating reserves against the total production costs of Evergy Central's units. Next, Staff analyzes the DA energy margins of Evergy Central coal units while the units were self-committed in the SPP IM. This calculation relies on the DA energy revenue compared against the short-run production margins recoverable under the SPP mitigated offer guidelines. Mitigated offers are intended to capture the incremental production costs of a unit, including the appropriate application of opportunity costs, for the unit providing services in the SPP energy or operating reserve markets.²³ Market participants are required to submit a mitigated offer curve in accordance with the market protocols.²⁴ The MMU evaluates mitigated offers to determine if the production costs qualify for recovery. Finally, Staff will analyze trends in Evergy Central's market activity including its DA energy margins, the volume of self-committed energy, and the number of hours the units were self-committed from 2017 – 2019.

Evergy Central's Coal Generation Facilities

Staff provided a table of Evergy Central's coal generation facilities, its ownership interest in each facility, and the facilities nameplate capacity provided in its FERC Form 1 from 2017 - 2019.

| EVERGY CENTRAL GENERATION FACILITIES: Ownership Interest & Name Plate Capacity (MW) | | | | | |
|--|------------------|-----------------------------|-------------|-------------|-----------------------|
| Generation Facility | Ownership | Ownership Percentage | 2017 | 2018 | 2019 |
| Jeffrey | Co-owned | 92% ²⁵ | 1,987 | 1,987 | 1,987 |
| LaCygne | Co-owned | 50% | 779 | 779 | 779 |
| Lawrence | Owned | 100% | 517 | 517 | 517 |
| Tecumseh 7 | Owned | 100% | 81 | 81 | Retired ²⁶ |
| Data: FERC Form 1 | | | | | |

²³ SPP's mitigated offer guidelines can be found in Appendix G of the Integrated Marketplace Protocols.

²⁴ A market participant's offer may be mitigated when the market participant is found to have market power or when the offer exceeds SPP's conduct threshold and impact screening.

²⁵ Evergy Central's Kansas ownership in JEC is apportioned by 72% ownership from Evergy Central (KPL) with 8% of its ownership interest to Evergy's Non-Regulatory Operation²⁵, and 20% to Evergy South (KGE). The remaining 8% interest in JEC is held by Evergy Missouri Metro.

²⁶ Evergy Central retired its Tecumseh 7 coal-fired unit in October of 2018.

Performance Review and Self-Commitment Analysis of Evergy Central's Coal Units

Staff's performance review and self-commitment analysis will be considered confidential due to Evergy Central's responses containing market data for services rendered by its coal units in a competitive wholesale energy market. For 2019, Staff aggregated the monthly market data provided in Evergy Central's confidential response to KCC Data Request No. 77 (KCC DR 77). For prior year comparison data, Staff aggregated the monthly market activity from a supplemental workpaper provided in response to KCC DR 77 and discovery responses from the 19-380 Docket. A breakdown of Evergy Central's monthly market data is contained in Schedules No. 1 through Schedule No. 4, which are attached in Confidential Appendix A to this Report.

For each schedule, Staff will provide a comparative table and analysis of year-over-year trends in the self-commitment of Evergy Central's coal units. In last year's ACA Report, Staff did not include the calculation of Day-Ahead Operating Margins found in Schedule No. 1. For Schedule No. 1, Staff provided Evergy Central's monthly market activity for its coal units directly in the Report and omitted the year-over-year comparative analysis.

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²⁷ The Schedule 1 table reproduces the monthly DA operating margin calculation in Appendix A, Schedule No. 1.

[REDACTED]

[REDACTED]

[REDACTED]

²⁸ See the SPP Annual State of the Market Report for 2019, page 133.

²⁹ See *Id.*

³⁰ See *Id.*

³¹ See *Id.*, page 150.

³² See *Id.*, page 151.

³³ Calculated using Evergy Central's Annual RECA Monthly Update, included in Exhibit B of the testimonies of Elizabeth Harrington (20-406 Docket) and Robin Allacher (19-380 Docket).

³⁴ See *Id.*

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

³⁵ See Appendix A: Schedule No. 2 for the monthly calculation of DA energy margins by coal unit.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



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Findings of the Self-Commitment Performance Analysis

Staff's methodology of aggregating the monthly self-commitment data and examining the market performance of Evergy Central's coal units is consistent with the approach utilities use to manage their coal operations in the SPP IM. In its 2018 ACA Report, Staff detailed the limitations of SPP's current unit commitment optimization in evaluating resources with long lead times and high start-up costs. Due to these limitations, electric utilities rely on their own forecasting methodologies and forecasts published by SPP to determine if the projected revenue of a coal unit is likely to support the unit operations over the anticipated market window. If projected revenues exceed the unit's short-run marginal cost, a contribution margin is produced, which contributes to the fixed operating and maintenance cost recovery of the unit. As such, the operation of the unit is economically beneficial to ratepayers even though the net sales revenue may not cover the full operating costs of running the unit. For this reason, the fixed operating and maintenance costs are considered "sunk costs" in the near-term. As stated in last year's ACA report, Staff believes a contribution margin analysis is an appropriate measure for evaluating the market performance of coal units in ACA proceedings. At its basic level, a contribution margin analysis provides a threshold determination of whether Evergy's market strategies for the self-commitment of its coal units are providing value to ratepayers.

Evergy Central's reduction in its volume of self-committed energy and number of self-committed operating hours were primarily driven by low wholesale energy prices in the SPP IM, resulting in reduced coal-fired generation output and thinner DA operating margins. These findings are consistent with Evergy Central's operating strategies for managing the unit-commitment decisions of its coal units, which were detailed in Staff's Confidential 2018 ACA Report. In aggregate, Evergy Central's marketing strategies have produced monthly contribution margins at its coal units that help support the fixed cost recovery of the assets. Furthermore, Evergy Central's coal units when self-committed produced day-ahead energy margins in the vast majority of its operating months in 2019. Based on Staff's performance audit, Evergy Central's market strategies appear to be successful in generating a contribution margin; and therefore, Staff is not recommending any disallowances in the 2019 ACA.

Staff notes that the possibility exists a different market strategy could increase the benefit to Evergy Central's customers through the further maximization of off-system sales revenue and the

³⁶ See *Id.*, Schedule No. 4 for Staff's monthly calculation of Evergy Central's number of self-committed operating hours for each coal unit.

minimization of fuel costs. However, it is also possible that a change in market strategy might cause customers harm through increased outage rates, decreased off-system sales revenue, increased operations and maintenance costs, shortened life of assets, increased outage frequency, decreased reliability, increased LMPs at the load node, and/or increased energy prices across the RTO's footprint. Any operational savings from cycling the coal units will need to be evaluated alongside any reductions in the reliability of Evergy Central's coal units or long-term increases in O&M expenses as a result of its cycling efforts.

If Evergy Central can continue to accrue benefits for ratepayers by reducing the output of its coal units during uneconomic operating periods or operating its coal units seasonally, Staff's recommendation is that Evergy Central should continue to explore these opportunities (even if this results in a reduction to the coal units' capacity factors). Maximizing the long-term value of each coal asset is in the best interest of Kansas ratepayers, and Evergy Central should be free to purchase low cost power from market resources when market prices cannot support a coal unit's production costs. As demonstrated in this year's ACA, the decline in Evergy Central's production volumes reduced the short-run fuel and production costs from its coal units that are passed on to customers in the ACA. In addition, the decline in production volume from Evergy Central's coal fleet could potentially lower the long-term maintenance expense and capital costs that are passed on to ratepayers in Evergy Central's rate cases.

RECOMMENDATION:

Staff recommends that the Commission approve Evergy Kansas Central's proposed ACA factor of \$0.000527 per kWh for the period April 2020 through March 2021, as filed. Staff will continue to monitor Evergy Kansas Central's performance and participation in the IM and will provide periodic updates to the Commission regarding this issue as requested.

REDACTED APPENDIX A:
Market Performance Analysis of Evergy Central's Coal Units
Schedules Nos. 1 – 4

| Contents | Page No. |
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| ** [REDACTED] ** | ** |
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CERTIFICATE OF SERVICE

20-EKCE-406-ACA

I, the undersigned, certify that a true and correct copy of the above and foregoing Notice of Filing of Staff's Report and Recommendation Redacted Versioin was electronically served this 23rd day of June, 2021, to the following:

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